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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,853	03/08/2004	Reinhard Engel	P2003,0162	3187

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CORNING CABLE SYSTEMS LLC
P O BOX 489
HICKORY, NC 28603

EXAMINER

CHIEM, DINH D

ART UNIT	PAPER NUMBER
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2883

DATE MAILED: 06/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/795,853

Applicant(s)

ENGEL, REINHARD

Examiner

Erin D. Chiem

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the After Final argument submitted on May 26, 2006. Applicant's argument is persuasive therefore; a new ground of rejection is now made to the set of amended claims that was submitted on December 08, 2005.

Claim Rejections - 35 USC § 102

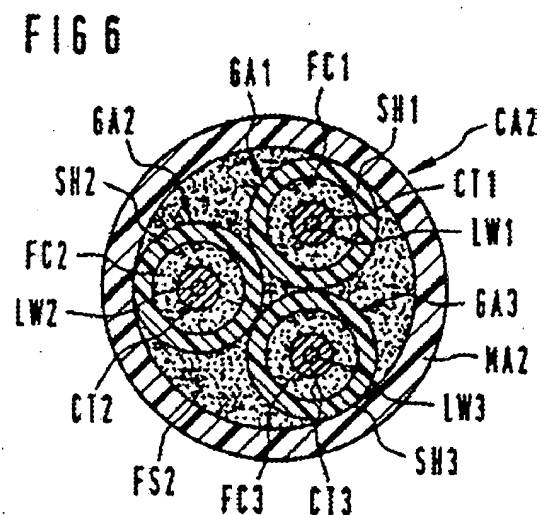
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4, 6-7, and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Polle (US 5,698,615 "Polle" hereinafter).

Polle discloses a process for manufacture of an optical transmission element (Fig. 6) having at least one optical waveguide (GA1) with a slot element (MA2) surrounding the at least one optical waveguide and defining an interior space (FS2), the process comprising the steps of applying a filling compound intermittently (col. 8, lines 62-63) to the at least one optical waveguide (col. 16, lines 5-6), wherein the filling compound is applied in a liquid state; feeding the at least one optical



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waveguide into an extruder to form a slot element around the at least one optical waveguide (col. 16, lines 5-6) wherein the filling compound expands within the slot element, thereby forming a plurality of dry, compressible elements that are disposed about the at least one optical waveguide (col. 5, line 29 – col. 6, line 50, see also. Col. 15, lines 26-27).

Claim 3, Polle discloses the microsphere soft embedding of the light guides assures the filling of the interstices (col. 8, lines 62-66).

Claims 4 and 6, Polle discloses the microspheres (balls) expand as a result of the applied heat from the extruder afterward (col. 16, lines 11-15).

Regarding claim 7, in disclosing the method of manufacturing the transmission element, Polle inherently also discloses the device of claim 7. With regard to the limitation which recites:

Formed by material expanding within the interior space, where a defined contact pressure is applied by the filling elements against the slot element and against the at least one optical waveguide for anchoring them in longitudinal direction of the transmission element and where position changes of the at least one optical waveguide are possible;

The method of forming the device is not germane to the issue of patentability of the device itself. Therefore this limitation has not been given patentable weight.

Regarding claim 9, similarly the application of the filling elements in the liquid state is not germane to the issue of patentability of the device. Therefore, Polle teaches this limitation from the cross section view of the device in Fig. 6.

Regarding claim 10, the plurality of filling elements are arranged intermittently along the longitude of the optical transmission element (col. 8, lines 62-63).

Claim 11, Polle describes the characteristics of the swelling powder in col. 2 line 42-col. 3, line 20).

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Regarding claim 12, the ease of removing the filling elements is a method of use, which is not germane to the device, thus Polle anticipates the device as shown in Fig. 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Polle in view of Yokota et al. (US 4,504,298).

Polle discloses the invention of claim 1 and further discloses the filling compound further consists of a lubricant such as oil to prevent from giving off dust from the filling powder during processing.

However, Polle does disclose the oil in the filling compound mixture is selected from a group consisting of polyurethane and silicone based materials.

Yokota teaches using silicone oil to lubricate the fiber during a drawing process to lubricate the drawing process and avoid damaging the fiber when hard metal powder dust is present.

Since Polle and Yokota are both from the same field of endeavor, the purpose disclosed by Yokota would have been recognized in the pertinent art of Polle.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to recognize that silicone oil can be used as lubricant in place of the white

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oil, as disclosed by Polle, to lubricate the injection process of the swelling powder. **The motivation** for using silicone oil is for the high heat resistant characteristic of silicone oil (col. 3, lines 37-39), which is desirable in a transmission element.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Polle.

Polle discloses the invention of claim 1 and further teaches the filling compound expands after extrusion (col. 16, lines 12-15).

However, Polle does not disclose explicitly disclose the expansion delays is from about 1 second to 300 seconds.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the expansion time delay by adjusting the applied heat from the extruder, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. **The motivation** for adjusting the expansion time delay is to provide appropriate storage of the compressible cable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

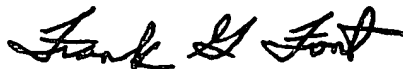
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Erin D Chiem
Examiner
Art Unit 2883



Frank G. Font
Supervisory Primary Examiner
Technology Center 2800